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EXAMINER	
TENTONI, LEO B	
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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/667,515
Filing Date: September 23, 2003
Appellant(s): CHOO ET AL.

Nathaniel T. Wallace
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed on 03 May 2006 appealing from the Office action mailed on 23 November 2005.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

No amendment after final has been filed.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is substantially correct. The changes are as follows: The rejection of claims 8-13 under 35 USC § 103(a) over Xuan et al (U.S. Patent 6,744,009 B1) is withdrawn in view of the filing (on 07 April 2006) of a certified English translation

of the priority document. The rejection of claims 8, 12 and 13 on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 11 and 14 of U.S. Patent 6,541,730 B2 in view of Stevens (U.S. Patent 5,622,540 A) is withdrawn in view of the filing (on 10 February 2006) of a terminal disclaimer (which has been accepted).

WITHDRAWN REJECTIONS

The following grounds of rejection are not presented for review on appeal because they have been withdrawn by the examiner. The rejection of claims 8-13 under 35 USC § 103(a) over Xuan et al (U.S. Patent 6,744,009 B1) and the rejection of claims 8, 12 and 13 on the ground of nonstatutory obviousness-type double patenting have been withdrawn.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

3,930,825 A	CHUI	1-1976
6,320,158 B1	KITAJIMA et al	11-2001
6,841,482 B2	BOYLE	1-2005

Appellant's admissions on page 5, lines 1-18 of the instant specification.

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 8 is rejected under 35 U.S.C. 102(b) as being anticipated by Chui (U.S. Patent 3,930,825 A).

Chui (see the entire document, in particular, col. 1, line 47 to col. 3, line 46) teaches an apparatus for cutting a non-metallic substrate including a first laser beam generating means and a second laser beam generating means, wherein the apparatus cuts the non-metallic substrate without a cooling device (the substrate, flat glass, is discharged from a glass forming apparatus and is cut while hot).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 9-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chui (U.S. Patent 3,930,825 A).

Chui (see the entire document, in particular, col. 1, line 47 to col. 3, line 46) teaches an apparatus for cutting a non-metallic substrate including a first laser beam generating means and a second laser beam generating means, and the remaining claimed features would have been obvious to one of ordinary

skill in the art at the time the invention was made in view of Chui principally in order to cut a desired substrate.

Claims 8, 9, 11 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over appellant's admissions in the specification at page 5, lines 1-18.

The instant specification at page 5, lines 1-18 describes a conventional laser cutting apparatus including a first laser beam generating means that generates a first laser beam for breaking molecular bonds of a non-metallic substrate so as to heat a cutting path formed on the non-metallic substrate and to form a scribe line having a crack to a desired depth, and a second laser beam generating means that generates a second laser beam for propagating the crack along a scanning path of the first laser beam in a depth direction of a non-metallic substrate. The specification also describes a cooling device. However, the omission of an element (in this case, a cooling device) and its function (in this case, cooling of a substrate) would have been obvious to one of ordinary skill in the art at the time the invention was made if the function of the element is not desired (in this case, the omission of the cooling device would certainly simplify the apparatus and reduce the capital and operational cost of the apparatus) (see MPEP 2144.04).

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over appellant's admissions in the specification at page 5, lines 1-18 as applied to claims 8, 9, 11 and 13 above, and further in view of Kitajima et al (U.S. Patent 6,320,158 B1).

Kitajima et al (see the entire document, in particular, col. 9, lines 4-21) teaches an apparatus including a fourth harmonics YAG laser having a wavelength of 266 nm, and such would have been obvious to one of ordinary skill in the art at the time the invention was made in the applicant's admissions in the specification at page 5, lines 1-18 principally in order to provide a laser beam that would be more than 90% absorbed by the substrate to facilitate cutting.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over appellant's admissions in the specification at page 5, lines 1-18 as applied to claims 8, 9, 11 and 13 above, and further in view of Boyle (U.S. Patent 6,841,482 B2).

Boyle (see the entire document, in particular, col. 4, lines 18-29 and 41-49) teaches an apparatus having a first laser beam having a width which is less than that of a second laser beam, and such would have been obvious to one of ordinary skill in the art at the time the invention was made in the applicant's admissions in the specification at page 5, lines 1-18

principally in order to use a less expensive, more stable laser to make a score line, and a more expensive laser to apply an excellent finish quality to the edges.

(10) Response to Argument

Appellant argues that Chui does not teach a second laser generating means that generates a second laser beam for propagating a crack along a scanning path of the first laser beam in a depth direction of a substrate, and Chui does not teach that the first laser beam forms a scribe line having a crack, as recited in claim 8 (i.e., Chui does not teach the functional limitations recited in claim 8). Examiner responds that while the features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function (*In re Schreiber*, 128 F.3d 1473, 1477-78, 44 USPQ2d 1429, 1431-32 (Fed. Cir. 1997)). The structure recited in claim 8 is a first laser beam generating means, a second laser beam generating means and the absence of a cooling device. The apparatus of Chui contains these structural features and thus, Chui anticipates claim 8.

Appellant argues that the admissions on page 5, lines 1-18 of the instant specification do not suggest or teach a laser for generating a scribe line having a crack. Examiner responds that

the admissions on page 5, lines 1-18 teach a first laser beam generating means (referred to as a scribing laser beam 13, which meets the claimed limitation of a first laser beam generating means and in this case, the scribing laser beam has the same function as recited in instant claim 8).

Appellant argues that the admissions on page 5, lines 1-18 teach a cooling device. Examiner responds that the omission of an element (in this case, a cooling device) and its function (in this case, cooling of a substrate) would have been obvious to one of ordinary skill in the art at the time the invention was made if the function of the element is not desired (in this case, the omission of the cooling device would certainly simplify the apparatus and reduce the capital and operational cost of the apparatus) (see MPEP 2144.04).

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Leo B. Tentoni

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